

CLIMATE LEADERS

SETTING THE STANDARD IN GREENHOUSE GAS MANAGEMENT

Accounting for External Reductions Federal GHG Workshop – 1/15/08



Measuring GHG Emissions



Measuring GHG Reductions

- What counterbalances, counteracts, or compensates for those emissions?

It is a **VALUE JUDGEMENT!!**

- EPA Committed to Ensuring Real, Measurable Emissions Reductions from GHG Mitigation Projects
(1 real emission) – (1 real offset reduction) = 0 net emissions

Key Points on Offset Approach

- **Goal reporting** should be transparent and public
 - Need to track inventory data w/o netting goal tracking data
- **Four key criteria:**
 - **Real** – actual reductions that have occurred
 - **Additional** – beyond BAU (performance standard)
 - **Permanent** – or can be backed by guarantees
 - **Verifiable** – quantified, monitored & verified
- **May 1) develop/invest or 2) purchased GHG reductions**
 - EPA developed project accounting for 6 project types to date
 - Reforestation/Afforestation, Comm. & Ind. Boilers, Landfill Methane, Manure Management (Ag. Digester), Transportation (Bus Fleet Upgrade)
 - Partners may develop methods for types not yet developed
- **EPA review of project summary and data**

EPA Approach to Using External GHG Reductions to Achieve CL Goals

Fact Sheet:

Overview of Using External GHG Reductions to Help Climate Leaders Achieve Reduction Goals

(available on CL website)

Draft Guidelines for Developing or Investing in Offset Projects

- Program Design Parameters
- Protocols for Specific Project Types
- Generic Project Protocol Guidelines

(under development)

Draft Screening Criteria for Purchasing GHG Reductions

- Screening Criteria Checklist
- Detailed Guidance/Checklists for Specific Project Types (e.g. Green Power Purchases)

(under development)

EPA Approach to Offsets

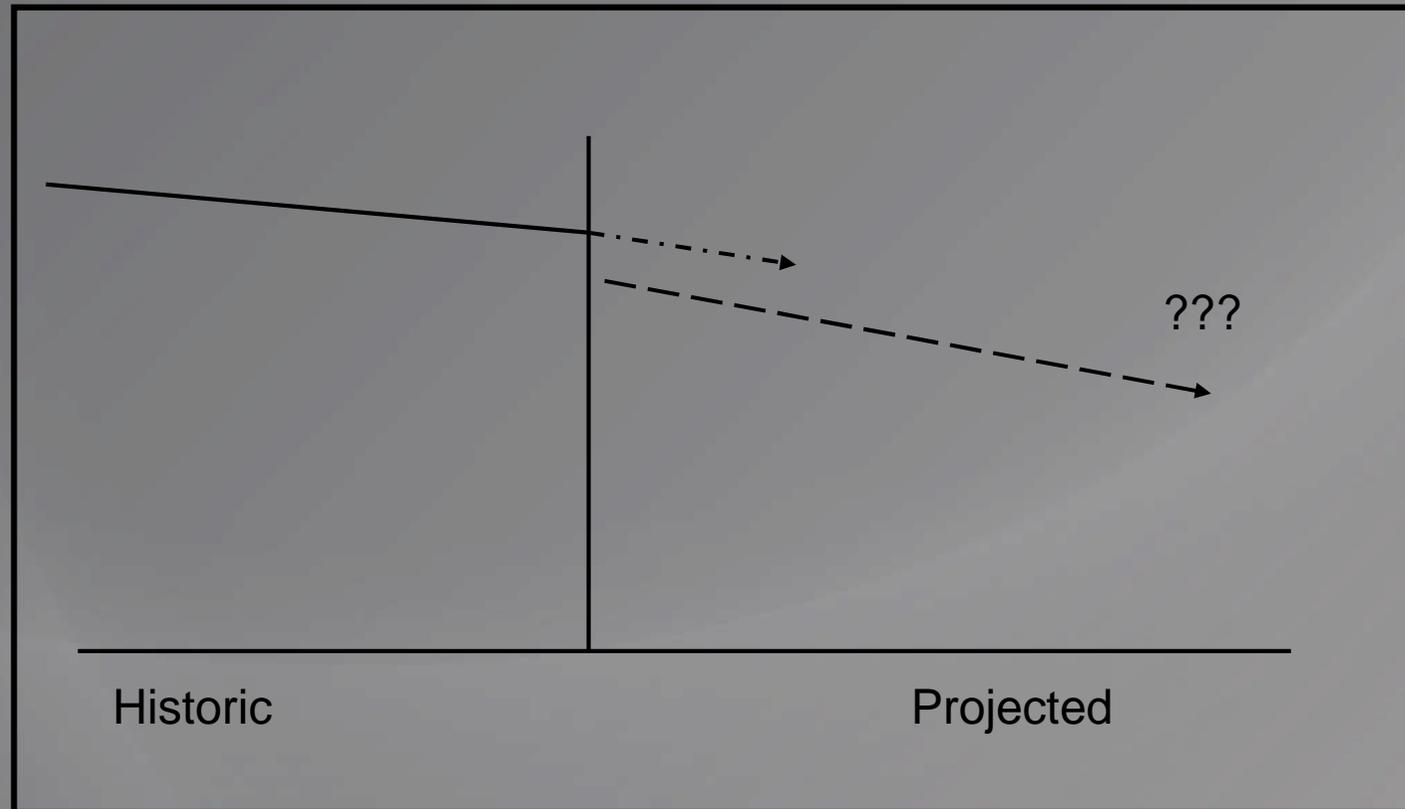
- Top-down, standardized methodology
 - Set appropriate metrics for additionality, baseline, and monitoring options
 - Includes a regulatory eligibility “screen” (surplus to regulation)
- Performance standard is specific to project type; comprised of performance threshold (to determine additionality) and baseline (for quantification) based on public data
- “Additionality” (beyond BAU) is based on an analysis of recent, similar activities in the relevant sector in a specific geographic area
 - May be emissions rate, technology standard or practice standard
- Continuous performance improvements
 - Periodically update the performance standard
 - Changes in regulations, market trends, and technology developments are reflected in periodic updates
 - “Pushes” technology improvements

Offset Methodology Steps

- **Clearly Define the Project Type**
 - Location, technology, size
- **Define Project Boundary**
 - Physical, GHG, temporal, leakage
- **Determine Regulatory Eligibility**
 - Federal, state and local regs, GHG caps
- **Develop and Apply the Performance Threshold and Emissions Baseline**
 - Determination of Additionality – performance threshold (emissions rate, technology, practice)
 - Clear baseline for emissions quantification
- **Implement Project, Monitor Emissions**
 - Limited set of acceptable monitoring approaches – direct metering, modeling
- **Quantify Project GHG Emissions Reductions**
- **Process for validation/verification (EPA review and approval)**
 - Provisions to address leakage, permanence, double-counting, *ex post*

Historic Data as Surrogate for Future Performance (Additionality)

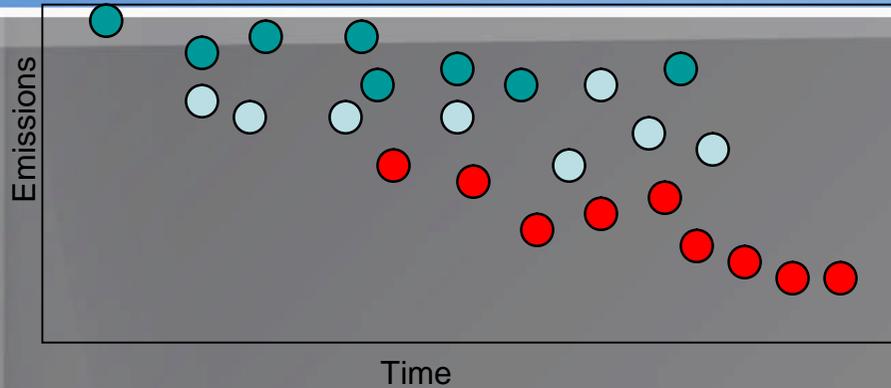
Activities or Emissions Rate



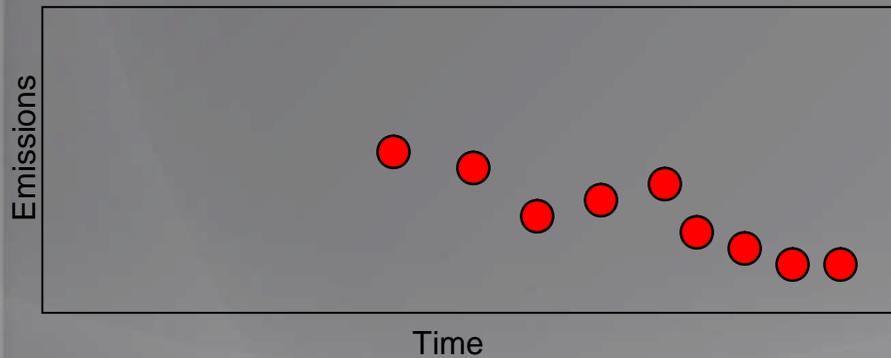
Sector/Project Type



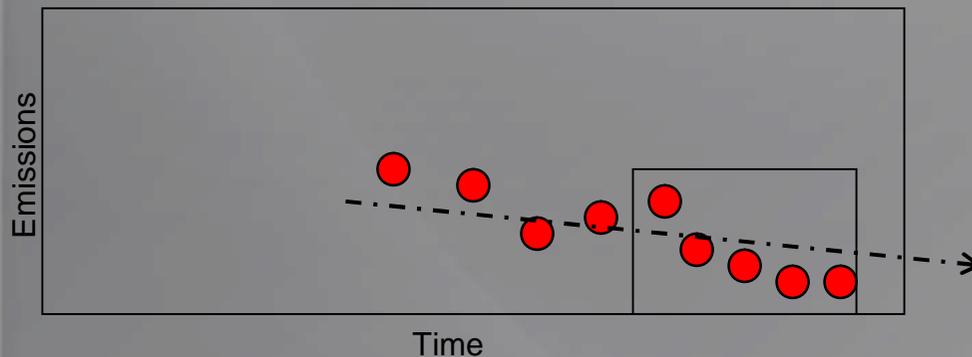
Setting a Performance Threshold



- = Region one data
- = Region two data
- = Region three data

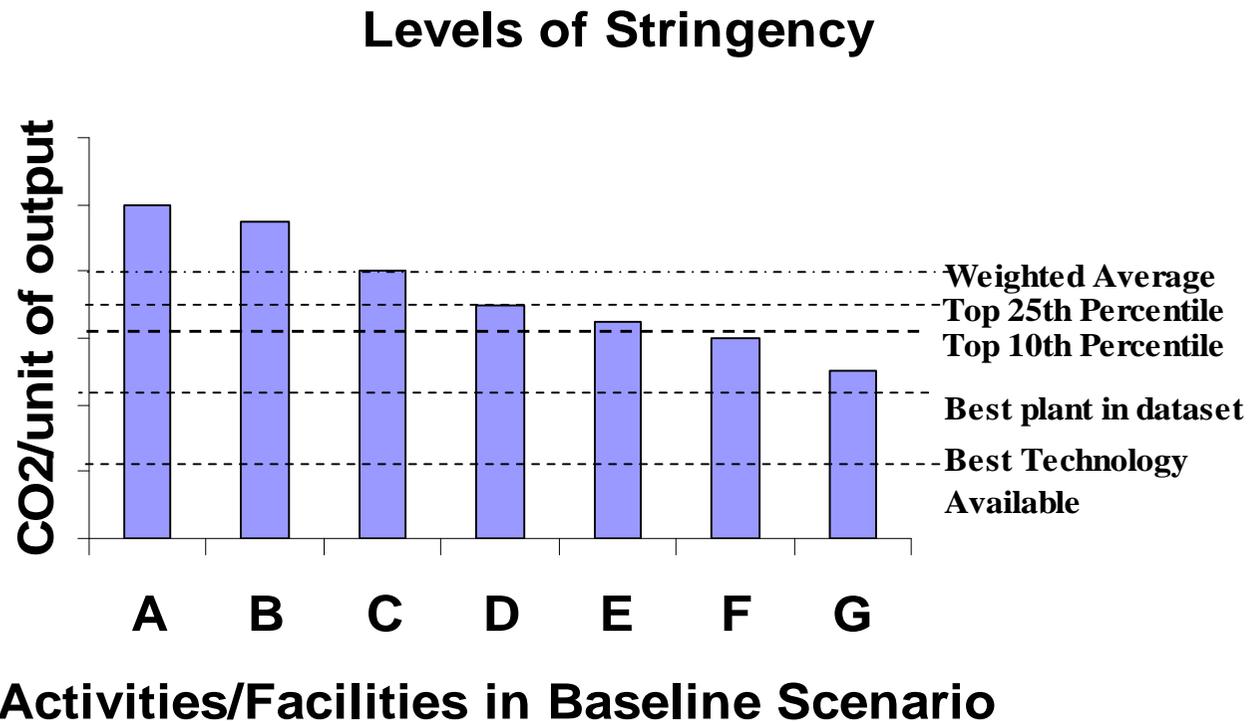


Decision that data differ regionally; only data from Region three are used



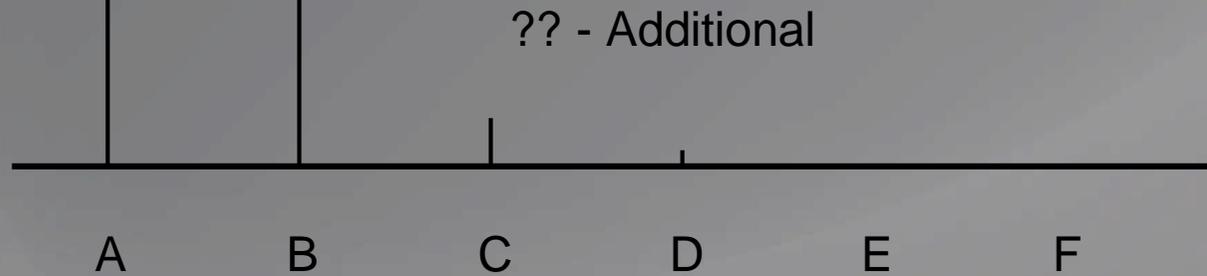
Data are examined for trends; improving trend so only recent data are used – surrogate for future trend

Performance Threshold/Baseline (Emissions Rate/Technology)



Performance Threshold (Practice Standard)

Percent of
Total of
Activities for
Each
Possible
Practice



Suite of Possible Practices (A-F)

Performance Standard and Project Specific Approaches

| Criteria | Approach | |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Performance Standard | Project-specific |
| Development cost | Low to developer, standard has already been approved; high initial cost to program. | High, developers bear all data collection and quantification costs. |
| Certainty | High, provided project is eligible and emissions are lower than the standard (or removals higher than the standard). | Low, developer does not know until reductions are quantified and the method is submitted to the program for approval. |
| Data requirements | High initially for program; low for developers - need to have sufficient project information to determine if standard is applicable. | High, developer collects data for test(s) on all baseline candidates to compare between them for each project. |
| Transparency | High, this assumes that external stakeholders have been engaged in the standard development and are satisfied with the data choice and quality. | Low, external stakeholders see a limited set of the data/decisions required to select the baseline. There may be confidentiality concerns about releasing financial information. |
| Treatment of Additionality | Set by program as a rate, practice or technology standard based on project type, geographic region and specific timeframe. Applicable to all relevant projects. | Additionality test is generally only applicable to the project for which it was generated –generally a subjective test (barriers, investment, project-to-project comparison). |
| Applicability of the procedure | Procedure is applicable to most project types (specific vary by project type). | The procedure is applicable to all project types. |
| Verification costs | Low, verifier only needs to check the eligibility of the project against the previously standard and project emissions. | High, barriers and financial data must be verified on a project-specific basis. |

Advantages of Performance Standard Approach

- Provides top-down guidance to project developers – bottom up option is available using approved methodology
- Reduces the complexity, cost and subjectivity of constructing individual project-specific arguments and review
- Improvement over subjective additionality tests
- Reflects Climate Leaders design principles
- Reflects EPA experience w/ performance benchmarking (ENERGY STAR)
- Consistent with WRI/WBCSD GHG Project Protocol
- Can be used for a variety of applications (sectors and geographic areas)
 - Climate Leaders
 - Corporate accounting
 - Voluntary programs
 - Other project-based efforts

Key Points for Workshop

- EPA has significant expertise on issues relating to GHG inventories, reduction goals, offsets and green power purchases
- EPA has released guidance on use of offsets and green power purchases for Climate Leaders
- EPA has released accounting methodologies to credibly calculate GHG reductions from 6 offset project types (with provisions to add more) and green power purchases
- Use of EPA methodologies should help add significant credibility
 - However, no provisions for external verification/certification for retail markets
 - No national registry of external GHG reductions in place